

### ABSTRACT OF THE DISCLOSURE

The present invention provides an improved voltage variable material ("VVM"). More specifically, the present invention provides an improved printed circuit board substrate, an improved device having circuit protection an improved data  
5 communications cable having circuit protection and a method for mass producing devices employing the VVM substrate of the present invention. The VVM substrate eliminates the need for an intermediate daughter or carrier board by impregnating conductive particles and possibly semiconductive and/or insulative particles associated with known  
10 volatage variable materials into the varnish or epoxy resin associated with known printed circuit board substrates.

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